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FIG. 1

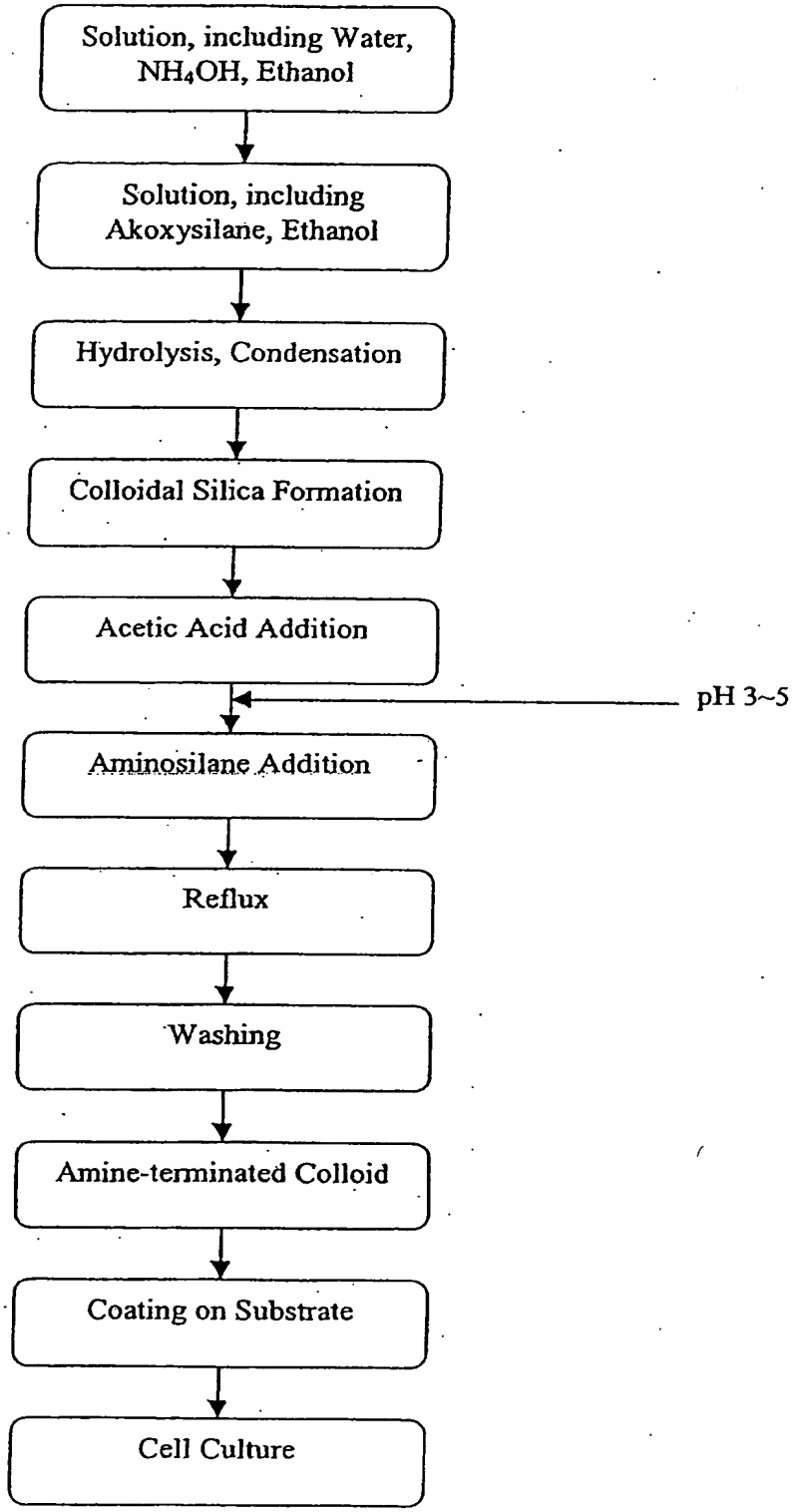

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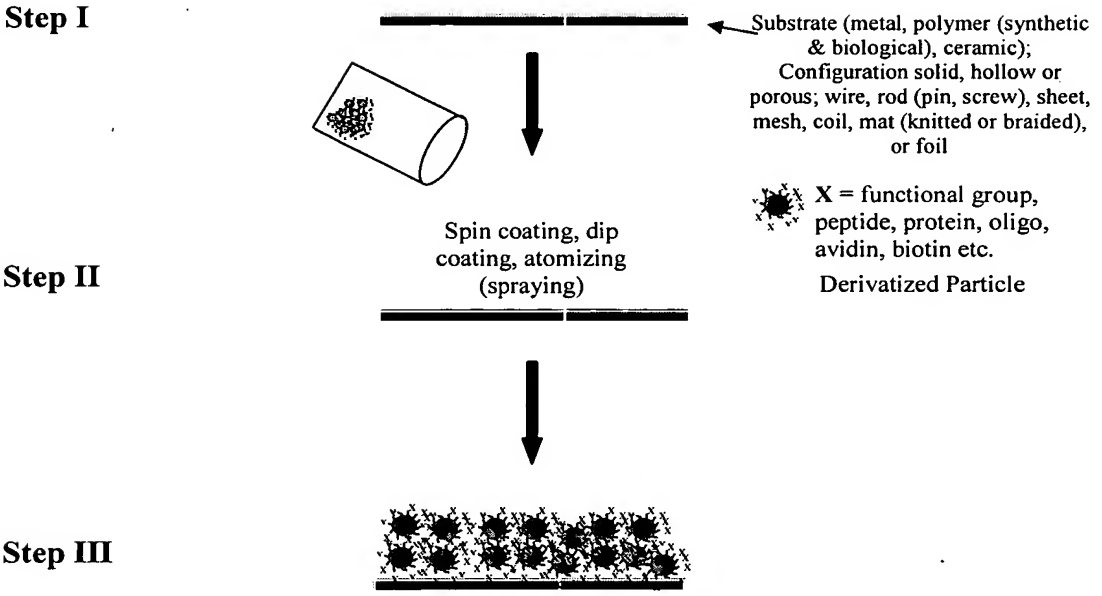
FIG. 2



Step IV: Repeat I - III with the same or different particle

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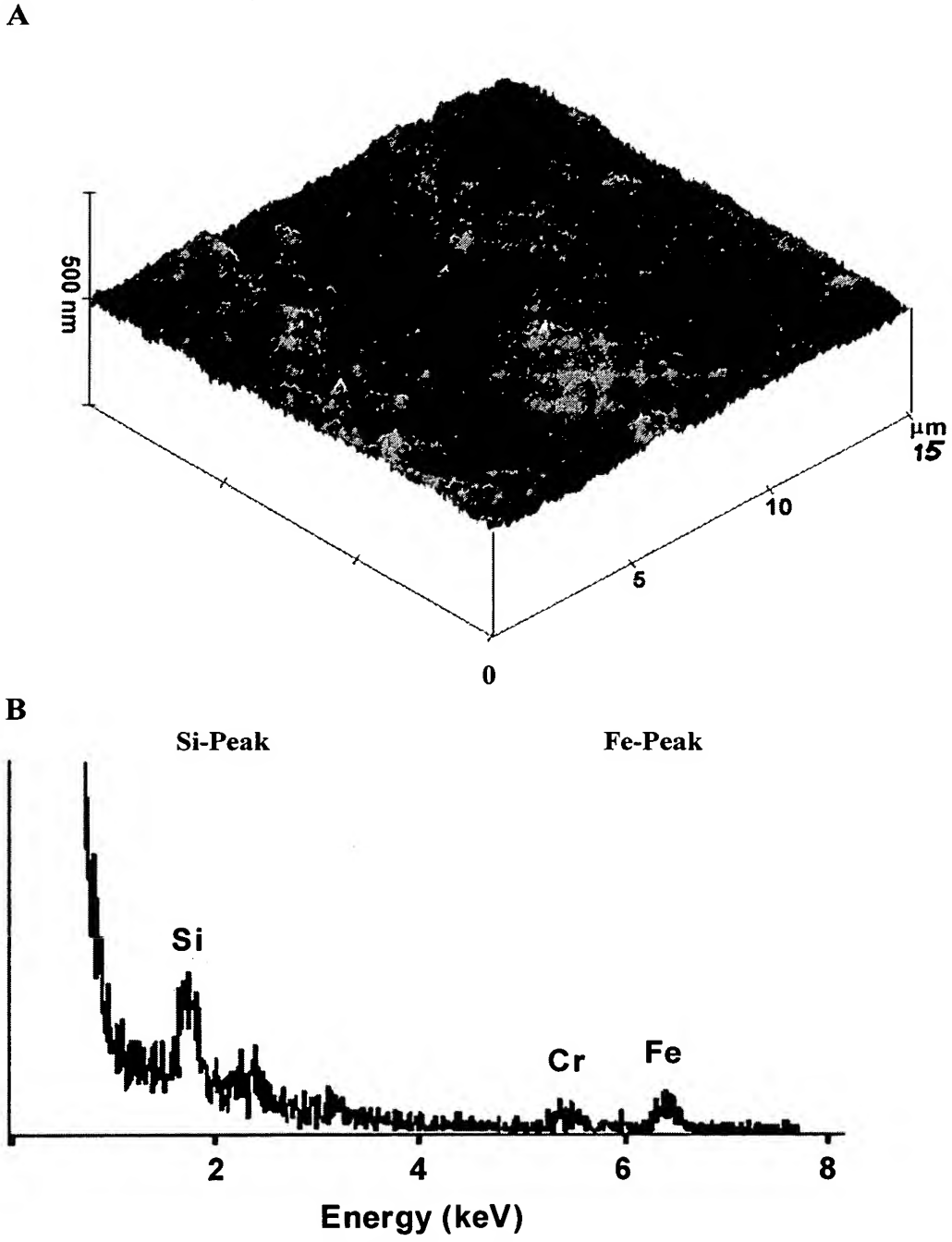
FIG. 3



Type 316-L stainless steel surface modified with silica nano particles (A) AFM image showing the presence of stacks of nano particles and (B) EDAX spectrum of the surface confirming the presence of Silica.

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FIG. 4

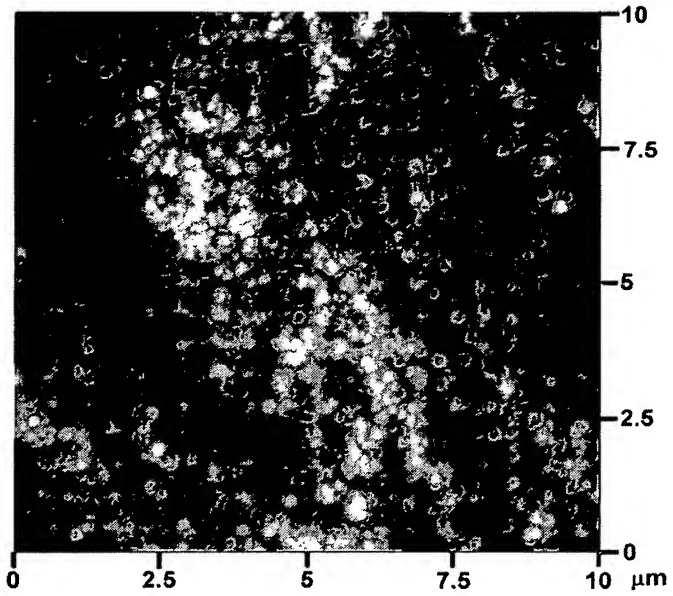

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FIG. 5

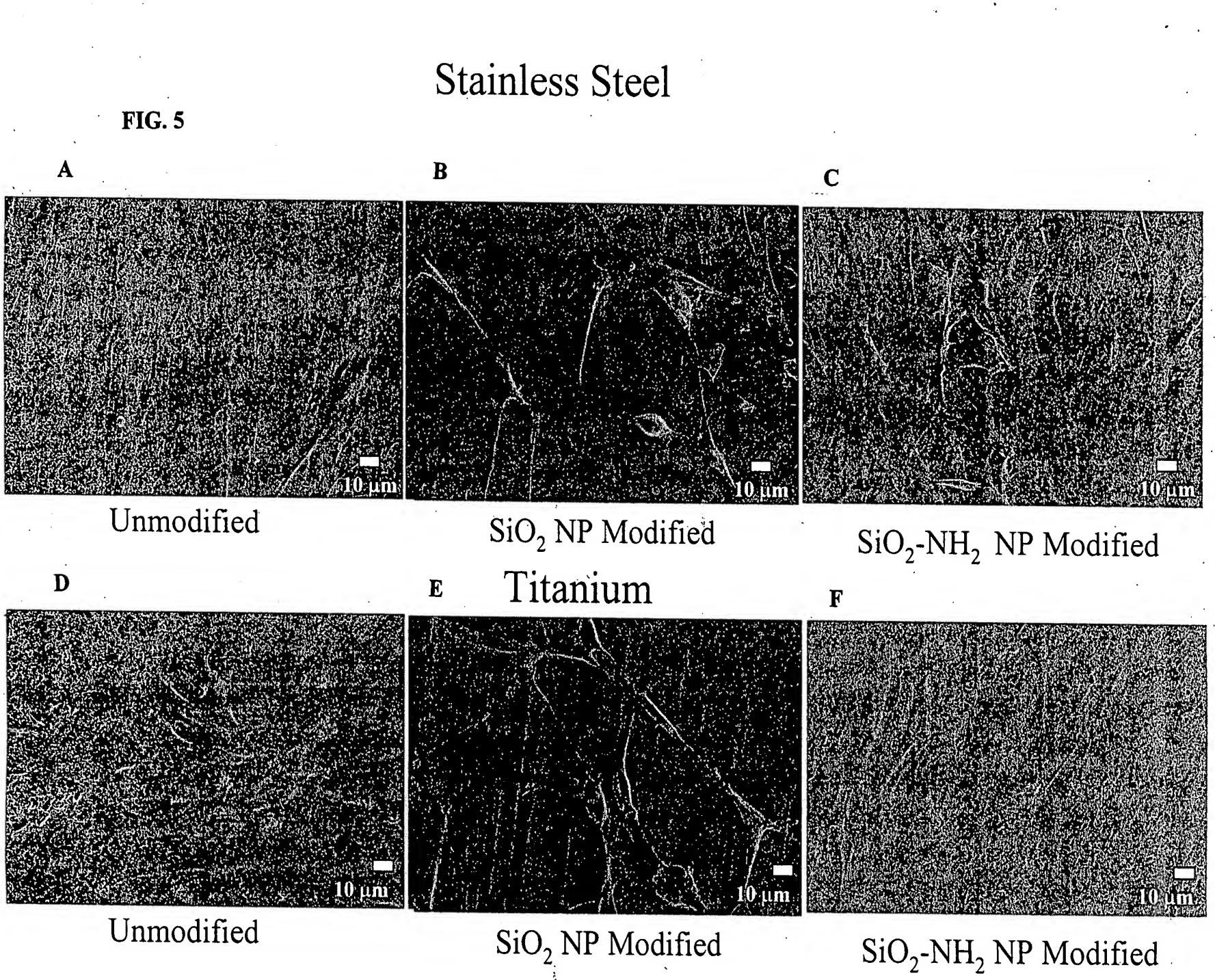

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FIG.6 Functional Group Quantification on Modified Metal Surfaces

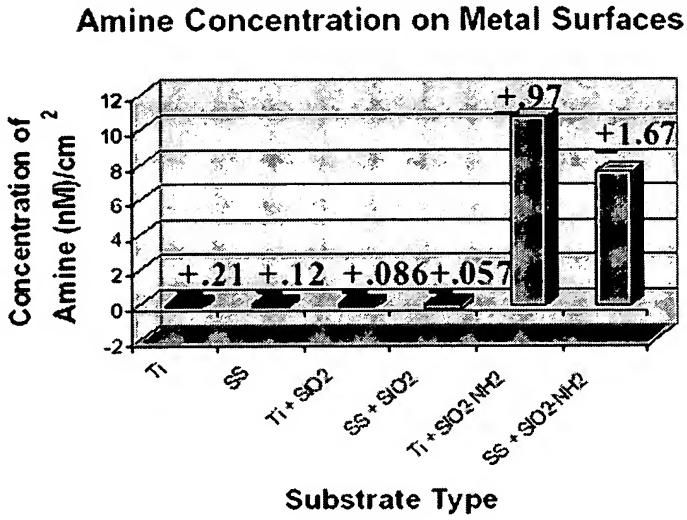

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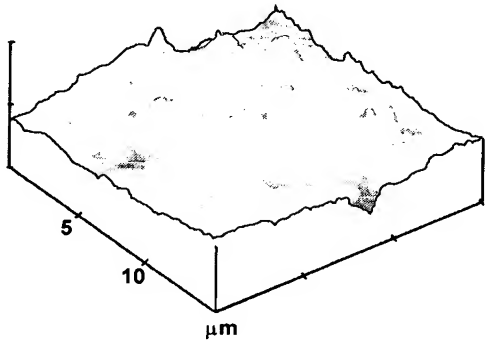
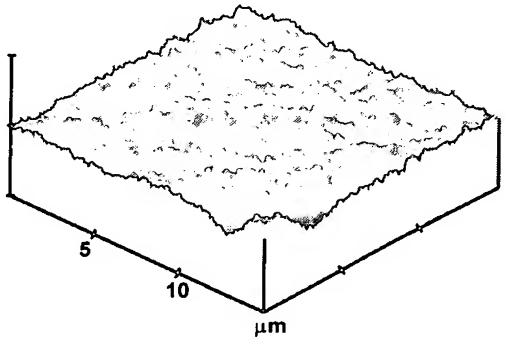
FIG. 7

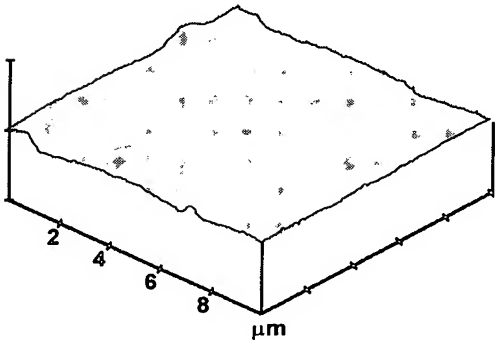
Atomic Force Microscope Images of Metal and Polymer Surfaces Modified Using Functionalized Silica Nano-particles (FSNP)



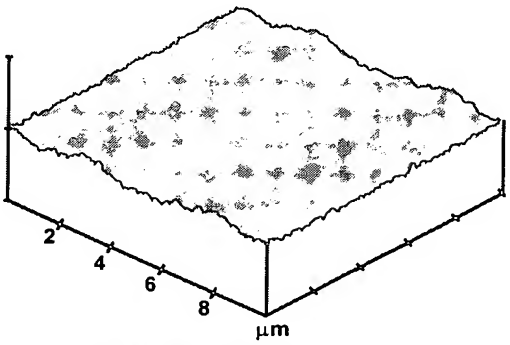
Titanium



Titanium + FSNP



Polyurethane



Polyurethane + FSNP

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FIG. 8

Fluorescent Images of DAPI (nuclear stain) Stained MC3T3-E1 cells on Polyurethane (PU) Surfaces

FIG. 9 Characterization of FSNP Modified Surface Using Scanning Electron Microscopy. (Non-limiting example)